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Senate State Government Committee Public Hearing
Tuesday, September 25, 2018
Dauphin County Administration Building
By Gerald D. Feaser, Jr.
Director, Dauphin County Bureau of Registration and Elections

Greetings to Chairman Folmer and Chairman Williams, and the members of the Senate State Government Committee.

Before demonstrating Dauphin County's voting system, I would like to offer my thanks and appreciation for the unprecedented forum provided to county election officials. Enactment of Senator Vogel's proposal will help ensure that the channels of communication remain open moving forward.

Now to the request for a demonstration of Dauphin County's voting system: the Danaher 1242, which is a Direct-Recording Electronic (DRE) voting machines. As I testified to the Committee in December, Dauphin County's voting machines have no internet or Wi-Fi connection. But, not only is this voting machine not connected to the internet, it is incapable of being connected to the internet. Looking for a Wi-Fi or internet connection on this machine is like looking for a turbo charger on a Model T Ford; it just simply isn't there.

Given the security and safety features built into our current system – including chain of custody of the memory cartridges – I could drop off one of my sealed voting machines in the middle of Red Square in Moscow and the only way the Russians could hack into it is by using an ax.

Historically, Dauphin County was the first to implement an electronic voting system. This machine looks virtually the same as the ones Dauphin County voters began using in 1985. Berks, Bucks, Delaware, Monroe and Philadelphia counties use the same system as you see here.

The voting system consists of the software, which is maintained on a single-use computer in my office, and that computer is not connected to the internet or even the County's network; and the hardware, which consists of nearly 500 programmed, tested and sealed machines we ready before each primary and general.

But, to suggest that we are using **the** same machines since 1985 would be inaccurate. While the hard-plastic shell of these machines may date to 1985, the internal component parts – such as the printers, matrix boards and CPU boards – have been replaced as needed. Additionally, in 2006, all CPU boards were replaced to allow for upgrades required by the federal ADA laws.

Before each primary and general, all machines are checked three times: first, as we take out the ballots from the previous election; second, when we put the new ballot faces and cartridges in each machine and conduct logic and accuracy testing; and third, when we prepare the machines for sealing prior to delivery. If there are any indications that a part needs to be replaced, we do so while the machine still is in the warehouse and before it is sealed for delivery.

On election days, if a part wears out, we make repairs without losing any votes on the machines, and we generally do so within 30 minutes of the problem being reported by the Judge of Election. Most election-day related repairs are to replace a battery or a printer that was damaged by misuse by a voter attempting to do a write-in vote. But, with recent changes in battery management and voter education, even these issues are becoming far and few between. In fact, this May, our election technician teams recorded the fewest issues with voting machines, despite power outages at two polling places due to the storms that impacted much of the eastern part of the state.

The following outline will be a guide to my demonstration of the voting machine and its security features.

1) Election preparation
    a. Limited Access to equipment
    b. Off-line and single-use programming system
    c. Controlled access to Voting machines in warehouse
    d. Logic and Accuracy Testing

2) Securing and sealing
    a. Statement Sheets
    b. Separate distribution of Statement Sheets and Machines
    c. Machine delivery and storage
    d. Distribution of election supplies to Judges of Election

3) Election Day Procedures
    a. Checking of seals (day before)
    b. Statement Sheet Review
    c. Machine opening procedures (day of)
    d. Zero Proof
    e. Poll Books, Numbered List of Voters
    f. Elimination of Overvoting
    g. Alerting Voters to Undervoting
    h. Closing Procedures
    i. Minority Inspector Envelope
    j. Delivery of Election Supplies
    k. Metal Security Seals
    l. Polling Place Posting of Results

4) Collection and Posting of Unofficial Results
   a. Reading of Cartridges
   b. Storing of Election Materials
   c. Recreation of Results in case cartridge is lost or damaged.

5) Computation of Votes and 2 Percent Audit
   a. Official Record of Write-In Votes
   b. Re-tabulation of Absentee Ballots
   c. Audit
      i. Ballot Image from Cartridge and Backup: by voter in randomized manner (this method is used)
      ii. Display Ballot Images: randomized review of each voters' vote in lights (not used, but available)

Now that you've seen this voting system and learned a little more about what goes on after the camera lights are turned off, I hope you agree that our voting system is, indeed, secure. It is free from hacking in a "real world" sense of the meaning, and reliable, as well as trusted.

Thank you for your time, and I'm available to answer any questions.

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